

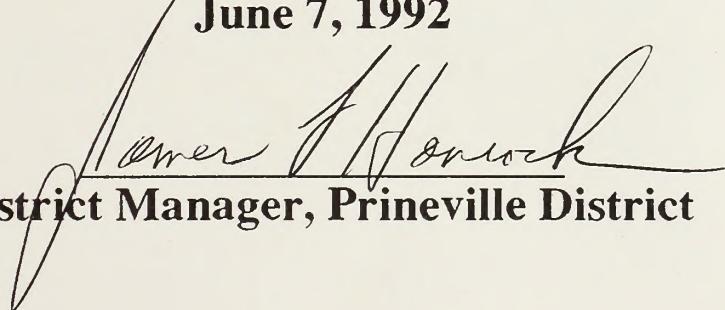


**U.S. Department of the Interior
Bureau of Land Management
Prineville District**

Supplement to the Draft

**Lower Deschutes River Management Plan
and Environmental Impact Statement**

**Prepared by:
Prineville District Office**

June 7, 1992

District Manager, Prineville District

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As the Nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering the wisest use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historical places, and providing for the enjoyment of life through outdoor recreation. The Department assesses our energy and mineral resources and works to assure that their development is in the best interest of all our people. The Department also has a major responsibility for American Indian reservation communities and for people who live in Island Territories under U.S. administration.

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BUREAU OF LAND MANAGEMENT
Prineville District Office
P.O. Box 550 (185 E. 4th Street)
Prineville, Oregon 97754

IN REPLY REFER TO:

June 7, 1992

Dear Friend of the Deschutes River:

The purpose of this document is to supplement the Draft Lower Deschutes River Management Plan/Environmental Impact Statement (EIS) which was released for public review in June 1991. Various alternative solutions to the issues (problems and opportunities) identified through the planning process were analyzed to determine the impacts to the river environment and local and regional economies. Many issues and alternatives (including a preferred alternative) were included in the Draft Plan/EIS.

Recently a new issue surfaced that was not considered in the Draft plan. At the Deschutes River Executive Review Board meeting held on February 5 and 6, 1992 in Portland, the Board decided on a motorboat ban upstream from Sherars Falls three years after completion of the management plan. As part of this decision, the Board directed the Bureau of Land Management (BLM) to pursue acquisition of legal public access during the fall, winter and early spring months to public lands upstream from the Deschutes Club locked gate. The gate is located seven miles upriver from Maupin. In order to meet requirements of the National Environmental Policy Act (NEPA), the BLM has developed the attached supplement to the Draft plan/EIS, which analyzes the consequences of alternative access options.

This supplement describes the issue, identifies various alternatives to resolve the issue and analyzes the environmental and economic impacts associated with each alternative.

We ask that you consider each of the identified alternatives that have been developed and the analysis of impacts of those alternatives. We are interested in hearing from you if you feel the preferred alternative is, or is not, the best way to resolve a particular issue. If you feel the preferred alternative should be changed, please tell us specifically how you would change it and why. If you feel that the analysis of impacts is incomplete or inaccurate, we would also appreciate your comments.

You can share your ideas and opinions with us in two ways: 1) write to us at the address on this page; 2) attend one of the public hearings. The public comment period will end August 7, 1992. Public hearings will be held in Portland on July 13 in the Second Floor Auditorium of the Portland Building located at 1120 SW Fifth Avenue at 7:00 p.m. and in Madras on July 14 at the Jefferson County Fairgrounds in the Macci Conroy Building at 7:00 p.m.

When all public comments on the supplement are received, analyzed and a proposed decision selected, the document will be incorporated into the Final Lower Deschutes River Management Plan/Environmental Impact Statement which will be completed by October 1, 1992. It will also be included in the separate BLM Record of Decision for the plan.

Written comments should be mailed by August 7, 1992 to:

District Manager
Bureau of Land Management
PO Box 550
Prineville, OR 97754

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Thank you for your interest and participation in this planning effort.

Sincerely,

James L. Hancock
District Manager

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Lower Deschutes River Management Plan and
Environmental Impact Statement

Draft (), Supplement (X), Final () EIS
Department of the Interior
Bureau of Land Management

1. Type of Action: Administrative (X), Legislative ()
2. **Abstract:** This supplement to the draft lower Deschutes River Management Plan addresses alternatives for access to public lands upstream from the locked gate on the Deschutes river access road south of Maupin, Oregon. The preferred alternative proposes easement acquisition for a limited number of vehicles and people per day during the recreational off-season (October 15 to May 15). Hiking and mountain bike use would be allowed while motorboat use would be banned year-round three years after the plan is finalized. River-related resource values would be protected while visitor safety and minimum facilities would be provided.
3. Eight alternatives are analyzed.
 - Alt. 1. Continue existing management direction (no action)
 - Alt. 2. Preferred alternative from draft plan (no easement, motorboat ban)
 - Alt. 3. No easement with limited motorboat use
 - Alt. 4. Easement acquisition for nonmotorized use with eventual motorboat ban
 - Alt. 5. New preferred-easement acquisition with limited motorized use with eventual motorboat ban
 - Alt. 6. Easement acquisition for motorized use with limited motorboat use
 - Alt. 7. No easement, but new perpendicular access road from Hwy 197 to river with eventual motorboat ban
 - Alt. 8. No easement, but new perpendicular access road from Hwy 197 to rim with access trail to river and eventual motorboat ban
4. The comment period will be for 60 days, ending August 7, 1992.
5. For further information, contact: Jim Kenna, Bureau of Land Management, Prineville District Office, PO Box 550, Prineville, Oregon 97754.

Executive Summary

The issue of whether the Bureau of Land Management should obtain access to public lands upstream from the locked gate south of Maupin is analyzed across a range of eight alternatives. The alternatives consider a variety of options including easement acquisition for limited vehicular access, regulation/elimination of motorboat use, hiking/mountain bike use and construction of an alternate access road and/or trail. These various actions impact soil, vegetation, cultural resources, recreation, visual quality, access and economics of the area. Impacts are summarized below. Analysis indicates there would be no significant impact to climate, air, water quality or quantity, floodplains, wetlands, riparian areas, threatened, endangered or sensitive species, fish and wildlife, utilities, agriculture, geology or energy and mineral resources under any of the alternatives considered in this document.

Summary of Impacts Table

	Alt. 1 No Action- DEIS	Alt. 2 Preferred- with motor- boats	Alt. 3 No Easement- with limited motorboats	Alt. 4 Easement- with no motorboats	Alt. 5 Easement- with limited vehicles and no motorboat access	Alt. 6 Easement- with limited vehicles and motorboat access	Alt. 7 No easement- but new perpendicular road to river	Alt. 8 No easement- but road to rim and trail to river
Soil and Vegetation	NC	NC	NC	NC	NC	NC	-M	-L
Cultural Resources	NC	+L	+L	-L	-L	-L	-L	-L
Visual Resources	NC	NC	NC	NC	NC	NC	-M	-L
Recreation Opportunity	NC	-M	-L	-M	+M	+M	+M	+H
Public Access	NC	-M	-L	-M	+M	+M	+M	+H
Economics								
*Cost Acquis.	NC	NC	200,000	400,000	400,000	800,000	800,000	800,000
Ini'tl Const	NC	NC	1,000,000	1,025,000	1,025,000	700,000	700,000	250,000
Annual Mtce	NC	NC	NC	8,000	8,000	25,000	25,000	12,000
Benefits								
Annual	NC	-57,750	NC	-57,750	+231,000	+231,000	+231,000	+231,000

Beneficial impacts are shown by a "+" indicating a positive change from present conditions. Adverse impacts are denoted by a "-" and indicate a decrease or negative change from present conditions. The letters "L", "M", or "H" are used to indicate the degree or severity of change from present conditions with "L" (low) indicating a relatively small change from present condition and "M" (moderate) denoting an increasingly more significant change from present condition and "H" (high) indicating a dramatic change. NC denotes no significant change from present condition.

*Cost figures for acquisition and initial construction were developed without appraisals or complete engineering and are subject to change as more specific information is developed.

Chapter 1 Introduction

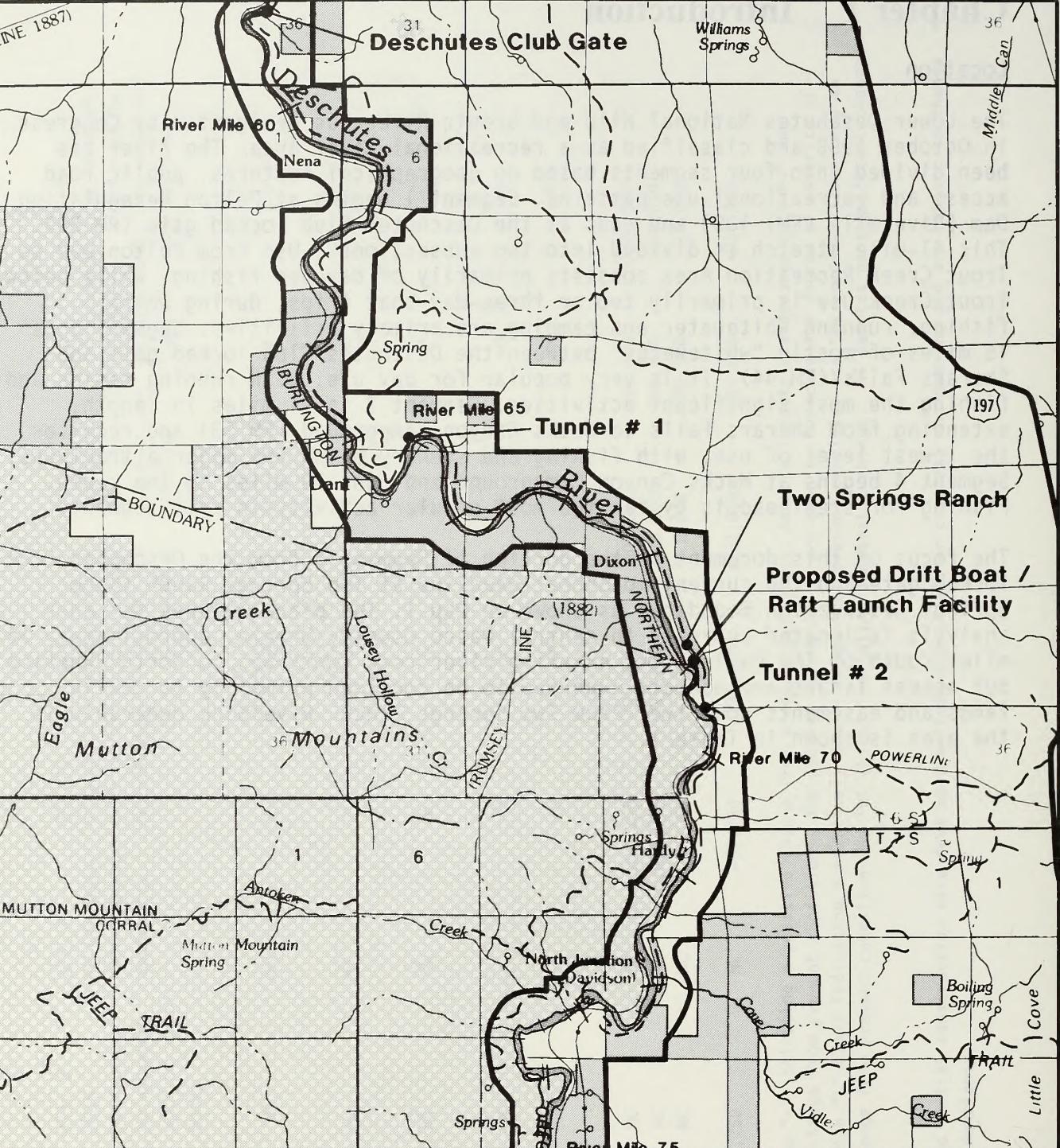
Location

The Lower Deschutes National Wild and Scenic River was designated by Congress in October 1988 and classified as a recreational river area. The river has been divided into four segments based on geographical features, public road access and recreational use patterns. Segment 1 begins at Pelton Reregulating Dam [Rivermile (RM) 100] and ends at the Deschutes Club locked gate (RM 59). This 41-mile stretch is divided into two subsections. Use from Pelton Dam to Trout Creek Recreation Area consists primarily of day-use fishing, while below Trout Creek use is primarily two or three-day boat trips, during which fishing, running whitewater and camping are primary activities. Segment 2 is 15 miles of mostly "whitewater" between the Deschutes Club locked gate and Sherars Falls (RM 44). It is very popular for day use, with running rapids and fishing the most significant activities. Segment 3 is 21 miles in length, extending from Sherars Falls to Macks Canyon campground (RM 23) and receives the lowest level of use, with fishing and scenery being the major attractions. Segment 4 begins at Macks Canyon Campground and runs 23 miles to the mouth. Fishing for steelhead is by far the most popular activity in this segment.

The focus of this document is the portion of Segment 1 from the Deschutes Club locked gate and the current motorboat deadline at Two Springs Ranch (Warm Springs Reservation Boundary) as shown on Map 1. The planning area for this analysis is located entirely in central Wasco County, Oregon, approximately 36 miles south of The Dalles. The existing river road continues to North Junction but access issues and use are expected to be confined primarily to public lands and easements downriver from Two Springs Ranch. Riverbank ownership in the area is shown in Table 1.

R. 13 E.

R. 14 E.



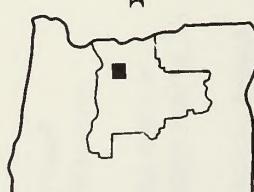
LEGEND

- Public Lands (Admin. by BLM)
- Indian Reservation
- Private Lands
- Planning Area Boundary

U.S. DEPARTMENT OF THE INTERIOR
Bureau of Land Management

**DESCHUTES CLUB
ACCESS MAP 1**

Prineville District



1 0 1 2 Miles

OREGON

Scale 1:80,000

1992

Table 1 Approximate Riverbank Ownership Two Springs Ranch to Deschutes Club Locked Gate

<u>Ownership</u>	<u>River Frontage</u>		<u>Acreage Within Planning Area Boundary</u>	
	<u>Miles</u>	<u>Percentage</u>	<u>Acres</u>	<u>Percentage</u>
BLM	10	51	1,970	50
Tribally-owned & allotted land	0	0	44	1
Other private land	9.6	49	1,890	49
Total	19.6	100	3,904	100

Purpose and Need – The purpose and need for this document is to address the issue of whether the Bureau of Land Management should obtain limited off-season vehicular access to public lands upstream from the locked gate south of Maupin.

Significant amounts of BLM-managed public land are located on both sides of the Deschutes River between the Deschutes Club locked gate and the current motorboat deadline at the Warm Springs Reservation Boundary. With the end of the floating season in the fall and the proposed eventual ban of motorboat use in this area, this land becomes essentially inaccessible to the public for day use during the fall, winter and early spring months. There is a need to maintain reasonable public access to the BLM-managed lands during the off-season (October 15–May 15).

Alternatives Considered

Within the framework of the Draft Lower Deschutes River Management Plan and Environmental Impact Statement, some alternatives are not reasonable to consider. Any alternative which would allow year-long public vehicle access along the existing river road upstream from the Deschutes Club locked gate would significantly change the character and use patterns of this river segment. Yearlong access would be unacceptable due to significant adverse impacts to the goal to manage for the more dispersed and moderate recreation use currently occurring in this area. Similarly, alternatives that would allow levels of public use during the off-season winter months which adversely impact river values or are inconsistent with the goal and objectives of the plan are not analyzed. Both alternatives have been dismissed from further consideration and are not further analyzed in this document.

Another alternative considered but not analyzed was one where public access easements could not be obtained by BLM and the Deschutes Club withdrew permission for members of the public to hike upstream from the locked gate on a day-use basis. This alternative is beyond BLM's ability to control or anticipate. The Deschutes Club and other landowners have allowed public hiking access on a day-use basis for many years. They have not indicated any interest in further restricting access at this time.

The BLM recognizes the ERB decision to eliminate motorboats in Segments 1 and 2 after three years, regardless of whether limited off-season motor vehicle access is obtained above the Deschutes Club locked gate. However, the ERB discussion closely linked motorboat use and reasonable, limited off-season, day-use access to the public lands between the Deschutes Club locked gate and the current motorboat deadline. Given the access issue raised by this discussion, the fact that motorboats are an existing and reasonable form of access to the public lands, and to meet National Environmental Policy Act (NEPA) requirements, we have included Alternatives 1, 3 and 6, which would allow motorboat use. Under NEPA, all reasonable alternatives to provide public land access between the Deschutes Club locked gate and the current motorboat deadline must be analyzed with full public participation, before a final decision is made. For the purposes of this document, motorboat use (or bans) only applies to the off-season from October 15 to May 15. No motorboat use would occur during the primary boating season.

The analysis and decision on this issue will be incorporated into the Final Deschutes River Plan. Completion of the plan is expected to occur on the Congressional deadline of October 1, 1992.

Alternatives analyzed in this document are as follows:

Alternative 1. No Action (continuation of existing management direction). Hiking access with permission above the Deschutes Club locked gate on a day-use basis, would be allowed. Motorboat use allowed to continue at present levels. A study would be conducted to evaluate environmental impacts of motorboat use on soil, water, vegetation, fish and wildlife.

Alternative 2. Draft Management Plan/EIS Preferred Alternative. Hiking access with permission above the Deschutes Club locked gate would continue on a day-use basis. Motorboat use would be banned in three years. No public vehicular access would be allowed along the river road.

Alternative 3. No easement with limited motorboat use. Hiking would continue to be allowed with limited seasonal motorboat use (maximum of five boats per day from October 15 to May 15). This alternative is based on the compromise alternative the majority of the Deschutes River Policy Group members supported.

Alternative 4. Easement acquisition for hiking and nonmotorized mountain bike use within acceptable limits. Motorboats would be banned and no public motorized vehicular access would be allowed. Allows basically same use as Alternative 2 except BLM controls road use and assumes responsibility for the tunnel.

Alternative 5. (Preferred Alternative) Easement acquisition for limited (maximum of 30 people - 5 vehicles x 6 passengers/vehicle per day between October 15 and May 15) off-season motorized vehicular access. Physical control and/or direct supervision would be provided by BLM at the location of the Deschutes Club locked gate. Hiking and mountain bike use would be allowed year-round. Motorboat use banned on year-round basis three years after plan is finalized. A launch ramp for driftboats and rafts would be constructed in the vicinity of Two Springs Ranch as shown on Map 1.

An exclusive easement for the road would be acquired to provide adequate maintenance, improvements and one of the tunnel repair/bypass projects. BLM would maintain the entire road segment for public off-season access, including the downstream tunnel, to the vicinity of Two Springs Ranch. The easement would extend as far as the existing BLM land in the NE1/4 of Section 19, T. 6 S., R. 14 E., upriver from the first tunnel. Improvements to the road would be restricted to a single lane gravel road with turnouts. Motorized access would be on a first come-first served basis.

The Preferred Alternative is based on the Deschutes River Executive Review Board decision to eliminate access by motorboats to public lands above the locked gate and to direct BLM to pursue substitute limited vehicle access to those lands during the off season.

Alternative 6. Easement acquisition with motorboats would allow limited off-season motorboat use (five boats per day from October 15 to May 15) and limited off-season vehicular access as described in Alternative 5.

Alternative 7. Easement not acquired along the river. New access road constructed. Motorboats would be banned after a three-year period. Private land in the canyon, together with an access easement, would be acquired from Criterion Ranches. A road on private and acquired public land would be improved from Highway 197 to the rim and a new road would be constructed to a point upstream of Tunnel #1. The road below the rim would be single lane with turnouts and would include short sections with steep grades. Road access below the rim would be limited to 30 people per day during the off season. Hiking and mountain bike use would be allowed year-round. A launch ramp for driftboats and rafts would be constructed in the vicinity of Two Springs Ranch as shown on Map 1.

Alternative 8. New access road and trail constructed. Easement not acquired along the river. Motorboats would be banned after a three-year period. Private land in the canyon, together with an access easement, would be acquired from Criterion Ranches. The easement would be improved to a two-lane gravel road which would terminate at an overlook with a turnaround, parking and picnic facilities. A hiking trail would be constructed from the overlook to a point on the river upstream of Tunnel #1. Access to the overlook and trail would be available year-round. Vehicular access would not be permitted on the trail.

Relationships

The Lower Deschutes DEIS provides a complete description of "Related Federal, Tribal, State and Local Planning and Management Responsibilities" in Chapter 1, pages 10-23. None of these relationships would be changed or affected by this supplement except as noted in Chapter III. Since BLM is solely responsible for this supplement and any subsequent actions, any decisions on this issue would be made under BLM procedural guidelines only.

Chapter II Affected Environment

Only resource values expected to be affected by management actions proposed in the alternatives are discussed in this section.

A more complete discussion of the resources and values of the Lower Deschutes River are contained in the Draft Lower Deschutes River Management Plan and Environmental Impact Statement, May 1991. Copies are available from the Prineville BLM District Office, PO Box 550, Prineville, Oregon 97754, phone (503) 447-4115.

Soils and Vegetation

The draft EIS described soils and vegetation, including special status and riparian vegetation in Chapter V (pgs 114 to 119 and related appendices). There are no known populations of sensitive plants in the areas proposed or likely to be disturbed in conjunction with tunnel repair, road reconstruction, boat ramp construction at Two Springs Ranch or new road or trail construction. Except for the Two Springs Ranch boat ramp, none of the construction would be on a floodplain, wetland or riparian area.

Cultural Resources

The diversity of prehistoric/historic cultural resources within the Deschutes River canyon include sites and materials which offer evidence of a continuum of human occupation spanning many thousands of years. In the area between the Deschutes Club locked gate and Two Springs Ranch, this diversity is apparent in the 40 cultural resource sites that have been recorded. While these resources are of primary importance in interpreting the changing cultural utilization of the area over the years, they continue to be vital in the recognition and practice of traditional Tribal cultures.

Although some inventory has been completed, no comprehensive database documenting prehistoric/historic resources exists for the Deschutes River canyon. Initial cultural resource inventories have been conducted on less than half the land base. With limited monitoring programs, some of the information on recorded sites is outdated and little evaluation as to their significance has been completed. Tribal traditional concerns and localities are not sufficiently documented or incorporated into the existing database.

This situation has been compounded by the complexity of ownership within the area. Coordinated resource management efforts have not been fully utilized to enhance site protection, documentation or interpretation.

Prehistory

Twenty-one prehistoric sites and seven undated sites have been recorded between the Deschutes Club locked gate and Two Springs Ranch. These include habitation sites such as rockshelters and villages, rock features such as cairns and walls, quarry sources and/or material reduction sites, and talus depressions. Shell middens and lithic and bone debris are found in association with the majority of habitation sites.

The most common site type by far is the rockshelter, comprising 13 of the 22 sites or 59 percent of the prehistoric site types in this area. Rockshelters were used for temporary occupation or storage and represent the earliest known habitation sites in the region and locally. One probable village site, exhibiting between six and eight house pit depressions, has been recorded.

The remaining site types generally reflect limited or task specific activities such as the extraction and initial preparation of stone for use as tools, the manufacture or retouch of stone tools and implements, and the processing and disposal of freshwater mussels. There is evidence that these kinds of activities also occurred at the aforementioned rockshelter and village sites.

History

Twelve historic sites have been recorded within the subject area and include evidence of historic use and development of the canyon. Almost half (approximately 40%) of the historic sites recorded between the Deschutes Club locked gate and Two Springs Ranch are related to the construction of the Oregon Trunk Railroad and the Oregon-Washington Railway Navigation Company. Two railroad sites include construction camps located in close proximity to the railroad grades, railroad sidings or settlements which were utilized as ongoing maintenance and local administrative centers for the railroad, and miscellaneous and limited use sites which include refuse dumps and remnants of the original railroad grades.

Other historic sites recorded include a line shack, associated with either agriculture or the railroad; homestead remains; domestic trash; and miscellaneous remains of the mining/railroad town of Dant.

Recreation

Recreation Resources

The Deschutes River and its canyon offer unique opportunities for outdoor recreation, reasonably close to Oregon's population centers. The river is the focus. The water is clean enough for swimming (although too cold for some), fast and "wild" enough for excellent whitewater boating, and supports good populations of game fish for angling. Upland game birds and deer also provide good hunting opportunities and other watchable wildlife abound. The 20-mile segment of river upstream from Maupin is paralleled by a dirt road. The Deschutes Club locked gate prevents public vehicle access to 13 miles of river. Private landowners do, however, allow the public to hike in past the gate on a day-use basis.

Recreation Facilities

Various public facilities, including roads allowing access to the river, parking areas, campgrounds, boat ramps, trails, toilets, drinking water systems and trash receptacles have been provided by Federal, State and local governments upstream and downstream of this 13-mile long area. There are presently eight toilets and a garbage drop facility provided by BLM for boaters using the public lands within the area. These facilities primarily support the higher use camping areas on public land.

Camping

Within the area from the Deschutes Club locked gate to Two Springs Ranch there are 104 undeveloped campsites on public land (79 on the east bank of the river and 25 on the west bank). A tree planting effort using volunteers has been identified to improve shading and vegetation structure. Campsites without toilets have occasional litter, fire rings and human waste but camping areas along this segment are generally left very clean.

During the primary use season, users compete for suitable campsites in this area as well as every other segment. Conflicts exist between motorized and nonmotorized boaters. During the off-season, these conflicts are reduced significantly because of lower use levels, particularly by nonmotorized boaters.

Random camping occurs occasionally where land ownership is unmarked or on private or Tribal land. Demand for camping areas open to the public causes some areas to be overcrowded during peak use periods in the summer. As a result, trespassing onto private land and user conflicts sometimes occur.

Public Access

Access, as used here, means the ability of recreationists to reach the areas which they wish to use. Public access to the Deschutes River is limited by three factors: the steep topography of the canyon, private and Tribally-owned lands through which the public cannot pass unrestricted, and the present state of the road and trail system. The BLM and the State of Oregon have pursued a policy of acquiring private lands for public access and use. The BLM's decisions are documented in the Two Rivers Resource Management Plan Record of Decision, 1986, pages 22-27. The State of Oregon, through the Division of State Lands, has determined that there is sufficient evidence to assert a claim of navigability and State ownership for the beds and banks of the Lower Deschutes River from Pelton Reregulating Dam (Rivermile 100) to the Columbia River (Rivermile 0). Although untested, this may provide public access to all segments of riverbed below the mean high water mark.

While all-weather roads provide access to the Maupin area, the river road up from Maupin through Deschutes Club locked gate to Two Springs Ranch is primitive dirt or gravel surfaced and located on an abandoned railroad grade. The road continues an additional four miles upstream dead-ending at North Junction. (See Map 1). The Des Chutes Railroad Company, an Oregon Corporation, acquired rights-of-way for railroad construction in 1909. Available records indicate that when crossing patented (private) land, the company purchased fee title to strips of land 100' in width. A deed dated July 22, 1909 from Ewen McLennan to the Des Chutes Railroad Company covered much of the area in question. McLennan sold fee title to several miles of right of way for \$10,000. This deed covered many separate parcels of land from Maupin to North Junction.

The railroad was constructed between 1909 and 1912 (approx.). Construction went rapidly, spurred by a competitor building a parallel line on the west side of the river. Construction in many places was made very difficult by steep to precipitous slopes and solid rock. As shown in Photos 1 and 2, the railroad bed was blasted out of basalt cliffs with the material forming a fill into the river. The railroad operated for a number of years but was abandoned sometime in the 1930s.



Photo 1



Photo 2

In 1944 the Des Chutes Railroad sold its right of way to Union Pacific (UP). UP in turn sold various portions of the right of way. One available deed shows UP selling several miles of right of way to The Dalles Rod and Gun Club on 11/23/44. Other segments were sold to the Deschutes Club and other individuals. In some cases, this resulted in ownership in the 100' R/W vested in one entity and the surrounding land in another. Four segments or about 3.5 miles of R/W belonging to The Dalles Rod and Gun Club from Maupin to Two Springs Ranch were deeded in fee to the United States (BLM) on May 19, 1969.

After the railroad was abandoned, the RR bed was converted to vehicle use and remains that way today. There has been no significant relocation or improvement of this segment of the roadbed other than grading and spot surfacing (gravel).

Ownership of land is mixed between public lands administered by the BLM and private holdings. The road segment from the Deschutes Club locked gate to Two Springs Ranch is approximately 9.6 miles in length. Three and eight-tenths miles of this road are on BLM-managed public land. An additional 2.2 miles of railroad right of way is owned by BLM. Total BLM control is 6.0 miles or 62 percent of the total segment. The Deschutes Club is the other major owner of property fronting on the road. It owns approximately 3.6 miles or 38 percent of the segment. Other property served by the road includes the North Junction Homeowners Association and a ranch that owns land near the road. The Deschutes Homeowners Association, across the river at Dant, is served by the road via a passenger ferry crossing.

In most places, the right-of-way is located immediately adjacent to the river often with the roadbed constructed as a fill into the river. In these areas, the canyon is very rocky with steep slopes or rock cliffs (Photos 1 and 2). Other portions of the R/W go across river flats, often hundreds of feet away from the river. Some of these flats have deep soils and were/are farmed (Photos 3, 4 and 5).



Photo 3

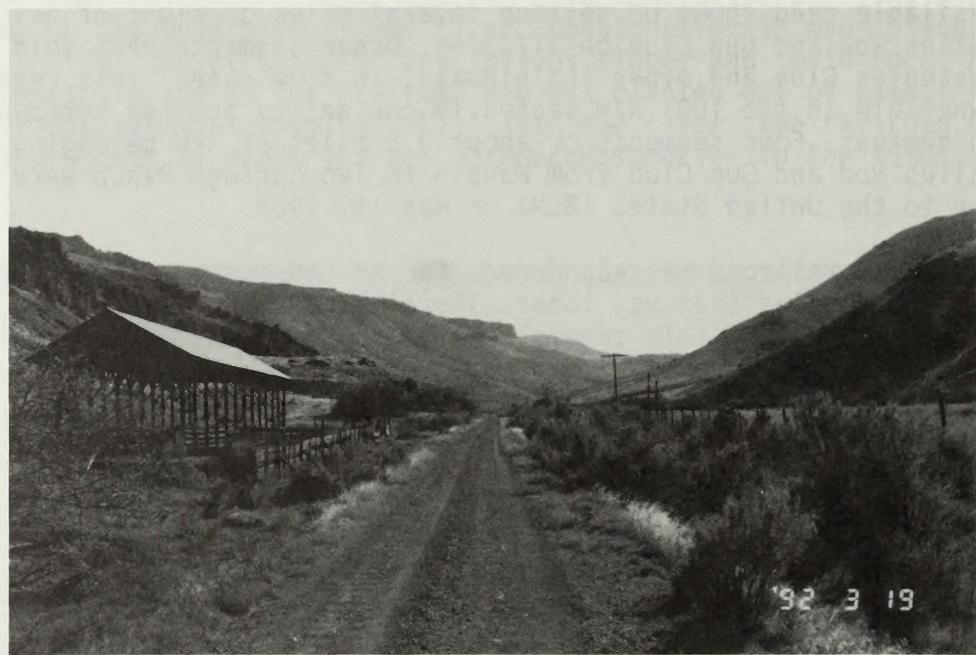


Photo 4

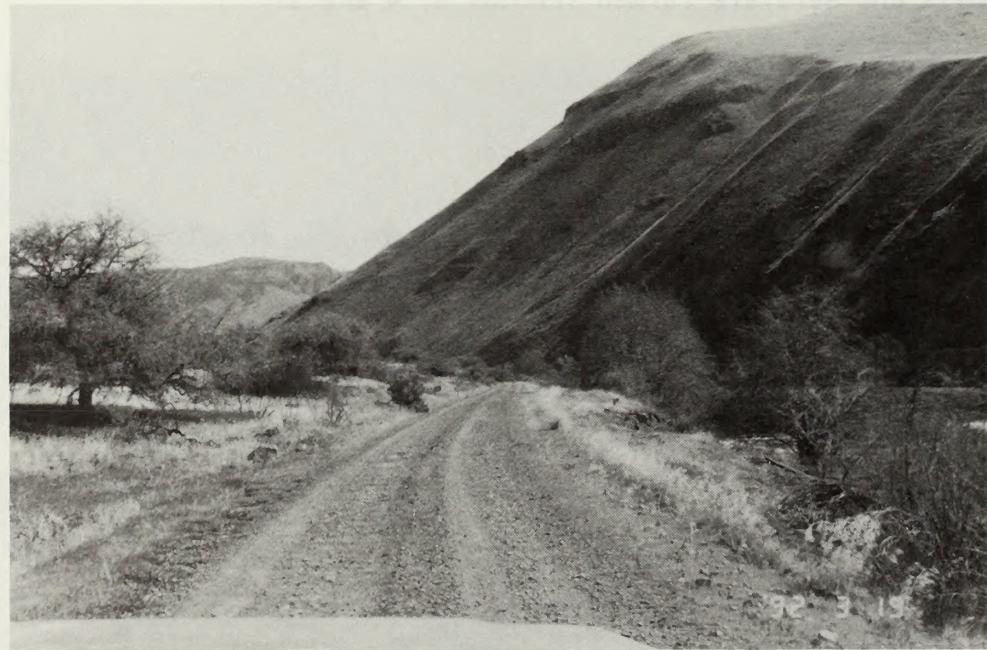


Photo 5

The road from the Deschutes Club locked gate to Two Springs Ranch is single-lane (approx. 10' to 12') with occasional turnouts. The old railroad ballast plus spot rocking provides an all-weather surface for most vehicles. The railroad grade drains well. Culverts have been installed at creek crossings. Other features include cattleguards, gates, right-of-way fencing, signs, driveway entrances, etc.

Particular features along the road include the following:

1. Deschutes Club Locked Gate (Photos 6 and 7)



Photo 6



Photo 7

This is a heavy steel gate with a covered lock box that effectively prevents unauthorized vehicle entry into the area. A good vehicle turnaround area is located near the gate. Signs explain road use limitations. The public is allowed foot access only. Additional signs (Photo 8) along the road explain use limitations including no camping, hunting, firearms, etc.

2. "Gatekeeper's House" and Gate - NW1/4NW1/4 of Section 7, T. 6 S., R. 14 E., W.M. (Photo 9). This is an old ranch headquarters and is currently occupied by the Deschutes Club caretaker. The gate is usually closed but unlocked. Signs explain use limitations and ask visitors to sign in, presumably at the house. Most walk-in use occurs downriver from this point.



Photo 8



Photo 9

3. Dant

This is a development (primarily recreational residences) occupied by the members of Deschutes Homeowners Association on the west bank of the river at Dant. Transportation of building materials and other heavy items was via the railroad. Normal homeowner and visitor access is via the subject road. A parking area is provided on the east side of the river. A small passenger ferry tethered to a cable provides access across the river.

4. Tunnel No. 1 - Photos 10 and 11

This tunnel is located on Deschutes Club property in Lot 6, Section 19, T. 6 S., R. 14 E. just upriver from Dant. It is the original railroad tunnel built in 1910 (approx.). It is approximately 350' long, 20' wide and 21' high. It was blasted and excavated through basalt rock. It is heavily reinforced with Douglas-fir timbers. Most of the timbers in the tunnel remain sound, however there have been problems at both entrances to the tunnel. The downstream end has been reinforced with steel posts and beams. The upstream entrance shows much rock fall and appears more hazardous. A separate report deals with the preliminary engineering study of the construction and safety of the tunnel. Copies of the preliminary engineering report are available from the Prineville District BLM Office. If public use is secured, repairs will be needed to ensure safe use.

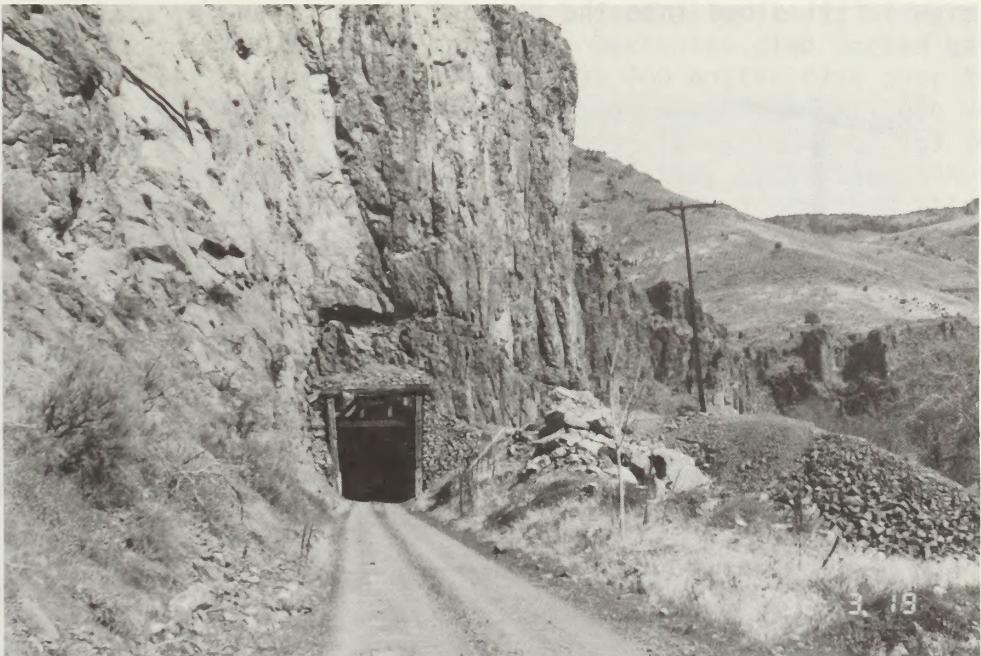


Photo 10



Photo 11

5. End of BLM Right of Way and upstream end of planning area (Two Springs Ranch-Photo 12)

The major portion of the BLM ownership and right of way ends in Lot 7, Section 28, T. 6 S., R. 19 E. at about rivermile 69. The right-of-way in this area is very close to the river with a steep fill slope into the river.



Photo 12

The road continues an additional four miles upstream dead-ending at North Junction. A second tunnel is located on Deschutes Club property in Section 28, T. 6 S., R. 14 E., beyond the end of BLM right of way and out of the planning area.

Boating

The Deschutes River is one of the most popular boating rivers in Oregon. Its year-round flow, proximity to major population centers in Oregon and Washington and world class fishing and whitewater opportunities make it a popular destination for thousands of boaters, both motorized and nonmotorized.

People float the river primarily for whitewater adventure and/or fishing. However, the scenic beauty of the canyon and river is also an attraction. There is great variation in the daily and seasonal distribution of use.

Every conceivable type of floating craft can be found on the Deschutes River, including rafts, driftboats, kayaks and canoes. Non-traditional "craft" are also found, such as inner tube rafts and fishing float tubes. Rafts and driftboats are the principal type of nonmotorized boats. Aluminum sleds with outboard or inboard engines equipped with jet pumps are the primary motorized watercraft.

Use data indicate that the popularity of the river increased dramatically in the late 1970s and early 1980s and has continued to increase at a slow rate in recent years. In 1975, total boating use on the lower 100 miles of the Deschutes River was estimated at approximately 60,000 boater days. By 1985 use had increased to about 110,000 boater days. In 1990, approximately 160,000 boater days of use occurred (motorized and nonmotorized). Float use varies considerably from segment to segment. Use in Segment 1 generally starts at Warm Springs or Trout Creek and ends below the Deschutes Club locked gate. Boating use in this segment has averaged 35,000 boater days over the last three years. During the primary boating season, weekday use varied from 44 to 220 boater days while on weekends, it varied from 159 to 559. Whitewater use and fishing are the primary boating activities. An estimated 1,800 boaters (motorized and nonmotorized) utilized this segment of river between October 15, 1990 and May 15, 1991. This is an average of 8.5 boaters per day although most use is concentrated in the spring and fall months.

Fishing

The Deschutes River attracts anglers from a wide area because of the diverse angling opportunities. A number of angling restrictions have been imposed on the river over the years to protect the fishery. Angling from a floating device has been prohibited for decades. In 1979 elimination of hatchery trout stocking and significant fish bag limit and terminal gear restrictions drastically reduced angler numbers. However, as angler numbers dropped, other recreation activities, including whitewater boating, increased. As other recreational use escalated, the conflicts with anglers have also increased.

Visitation Estimates

Traffic counters are in use on roads in various locations to indicate traffic that is generated primarily by recreation. Table 2 shows vehicle traffic comparisons for the years 1987 through 1991. The numbers indicate a rising trend in recreational, residential and administrative use of the road. Most of this use is for access to the launching site at Harpham Flat.

Table 2 Average Daily Traffic, Maupin-Deschutes Club Locked Gate

	<u>Vehicle Use Per Day During Primary Use Season</u>	<u>Vehicle Use Per Day During Off-Season</u>
1987	271	17
1988	217	10
1989	242	23
1990	332	40
1991	376	33

Note: Some vehicle use extends beyond the Deschutes Club locked gate. The amount of this use is not available to BLM.

Place of Origin

Based on studies conducted in the 1970s, approximately 55-60 percent of Deschutes River visitors are from Western Oregon or Southwestern Washington. Slightly more than one-third are from Eastern Oregon with a small percentage of visitors coming from other areas. The majority of use during the fall, winter and early spring months is thought to be from the local area (Wasco, Jefferson and Sherman Counties).

Economics

The planning area is within Wasco County. The primary focus is on the community of Maupin and the immediate vicinity.

Population

Wasco County has seen a one percent decline in its population between 1980 and 1990. It is the smaller communities and rural areas of the county that have been most affected by this decline. Maupin has seen a nine percent decrease in its population between 1980 and 1990. Table 3 shows population estimates for Wasco County.

Table 3 Population Estimate for Wasco County, Oregon 1990

Population	
Wasco County 1990	21,700
Maupin	460
Dufur	530
The Dalles	11,000

Source: Population Estimates for Oregon 1980-1990
 Center for Population Research and Census
 Portland State University
 March 1991

Employment

Employment for Wasco County is largely influenced by the activities centered in its largest community, The Dalles. Employment statistics for small communities and rural areas tend to get lost in the county level numbers which are generated. The community of Maupin suffered a major economic blow when the only sawmill in Maupin closed in March 1992. This occurred less than a year after the only sawmill in Tygh Valley (about ten miles to the northwest) closed.

An estimated 60-70 residents (25 percent of the labor force in Maupin) lost their jobs at the Maupin Sawmill. This has a ripple effect on the rest of the community because of its level of interdependence.

The 1990 average annual resident labor force, unemployment and employment statistics for Wasco County are shown in Table 4.

Table 4 Average Annual Resident Labor Force, Unemployment and Employment

Wasco County 1990

Labor Force	10,390
Total Employment	9,580
Percent Unemployment	7.8
Agriculture	1,990
Non-agriculture	7,590
(wage & salary)	
Manufacturing	1,170
Nonmanufacturing	6,420
Trade	2,000
Services & Misc.	1,760
Government	1,960

Source: State of Oregon Employment Division, Department of Human Resources, April 1991.

Income

Maupin is dependent on recreation use of the Deschutes River to a far greater degree than any other community in the region. Other smaller communities which are also directly dependent on recreation use of the Deschutes River include Pine Grove, Tygh Valley, Dufur, Biggs Junction and Grass Valley. The degree of dependency of these communities is evidenced by the store, tavern and restaurant in Tygh Valley which ranges from approximately 25 percent dependency for the store to estimates as high as 70 percent for the restaurant.

Recreation use on the Deschutes River provides the recreation-related retail trade and service sectors a major spring and summer boost in sales, so much so that a considerable amount of the seasonal income generated is carried over into the fall and winter to supplement incomes in the off-season.

Some businesses in Maupin reduce their hours of operation or close in the off-season. Though incomes can be supplemented to some extent by taking on other jobs outside the community, many prefer to stay in Maupin waiting for the river recreation season to begin again. The seasonal nature of the community is also evidenced by approximately 20 percent of total housing units in Maupin being vacant during the winter months, decreasing to an average of ten percent during the summer season.

Chapter III Environmental Consequences

Introduction

This chapter identifies, summarizes and compares environmental impacts projected to occur as a result of implementing the various alternatives. Impacts are discussed as either short term (up to five years after approval of this plan) or long term (beyond five years). Discussion of impacts will be the same for both the short term and long term unless stated otherwise.

Analysis indicates there would be no significant impact to climate, air quality, water quality or quantity, floodplains, wetlands, riparian areas, threatened, endangered or sensitive species, fish and wildlife, utilities, agriculture, geology or energy and mineral resources under any of the alternatives considered in this document. They will not be considered further. In addition there are no designated wilderness or wilderness study areas within the planning area. There are no commercial forest lands or woodlands.

Analysis indicates that no impacts of regional significance would result from implementing any of the alternatives. The environmental consequences are of significance to the immediate property owners of the area of implementation and would have a modest effect on the local economy, but not beyond.

All alternatives assume that adequate funding and, if appropriate, authorization by Congress, would be available to allow decision implementation within a reasonable timeframe. It should be noted that land acquisition, such as a potential BLM acquisition of the Criterion Ranch properties, is consistent with the June 6, 1986 BLM Two Rivers Resource Management Plan and could proceed regardless of the final decisions in the Lower Deschutes River Plan. As a consequence, the details and environmental consequences of this potential acquisition are not addressed in this supplement. In a similar manner, the potential construction of visitor facilities, "perpendicular" road and/or trail construction and tunnel repair (if any) would be subject to project specific environmental analysis including appropriate cultural resource and special status species inventories prior to ground-disturbing activities.

Alternatives 4, 5 and 6 assume that BLM would acquire an easement which would include assumption of tunnel repair and maintenance responsibility. The Bureau's preliminary "Deschutes Road Tunnel Evaluation" dated April 2, 1992 (included by reference to this supplement) suggests that remedial repair of the tunnel would require substantial repair of both tunnel portals and stabilization of exterior rock surfaces. Although a detailed engineering study including rock testing and wooden structure evaluation has not been completed, certain assumptions can be made for purposes of this supplement to the DEIS. For purposes of analysis, it is assumed that tunnel repairs would involve an initial closing of up to six calendar months with periodic closures thereafter for inspections and further maintenance. The restored tunnel portals could be designed to replicate the original wooden structure but there would most likely be some visible evidence from the river that the tunnel had been stabilized. A construction project staging area of one to two acres would be required for material and equipment storage. It could be located on public or private land and would be reclaimed following completion of the initial reconstruction. Residual impacts to the project would be minimal. Some of the

labor and supplies for the project would be obtained locally, providing a short-term economic benefit to the local economy. Upstream private landowners would be inconvenienced during reconstruction, but could have property values increased as a result of a more reliable and safe road tunnel structure.

Alternatives 7 and 8 assume that BLM would acquire private land from Criterion Ranches together with an access agreement for an existing unimproved ridgeline road which runs from U.S. Highway 197 almost due west towards Tunnel Number 1 (as shown on Map 1). Although a detailed analysis of the feasibility of reconstruction of the ridgeline road and ridge-to-river road or trail has not been completed, certain assumptions can be made for purposes of this supplement to the DEIS.

It is assumed the ridgeline road would be improved for all-weather, year-round access to a canyon rim viewpoint and interpretive site. The road would be a Bureau standard two-lane facility approximately three miles long and require surface disturbance of approximately 22 acres (3 miles x 60 feet). The viewpoint, parking area, turn around and restroom area would probably require about two acres of site disturbance for a total of 24 acres of disturbance common to both Alternatives 7 and 8.

Under Alternative 7, a single-lane road with turnouts (to allow opposing traffic passage) would be constructed from the ridgeline road to the river at some point (yet to be determined) upstream of tunnel number 1. It is assumed this road would be three to four miles in length, depending on the maximum road gradient. While a relatively steep road (10 percent +) would minimize construction costs and physical impacts, it would require more maintenance and pose increased safety hazards to vehicles and greater difficulty to pedestrians and mountain bikes as opposed to a more modest (8 percent) gradient road. Since part of the rationale of the road would be to allow winter (off-season) access to the river for nonmotorized boats and rafts, it is assumed some of the users would be carrying or towing boats and road curve radius and gradient would be important design criteria. Assuming the majority of the road construction was full-bench with minimim cut and fill, the disturbed area would be about 30 acres (3 miles x 80 feet). The majority of surface disturbance would be on steeper slopes in a side canyon.

Under Alternative 8, a hiking trail would be constructed from the rim overlook to the river. Assuming the gradient would be modest (8 percent or less) and take advantage of natural topographic breaks, the trail would be about four miles long and have a usable width of about four feet with construction disturbance not likely to exceed a total of three acres (4 miles x 6 feet).

Impacts to Soils and Vegetation

The draft EIS anticipated environmental consequences to soils and vegetation in Chapter VI (pg. 167-171 and 175-179) including actions related to roads and parking areas, boat launches and trails. The reconstruction of the tunnel in alternatives 4, 5 and 6 is not expected to disturb significant new areas with high erosion potential or existing vegetation except for the 1 to 2-acre reconstruction project staging area. Reconstruction of the existing unimproved ridgeline road and construction of a view point and parking areas is expected to disturb approximately 17 acres with total removal of native vegetation. New road or trail construction impacts to soils and vegetation would be minimized

by mitigating measures common to all Bureau construction. Depending on final design and engineering, the rim-to-river road would eliminate up to 30 acres of native vegetation while the trail would eliminate about three acres of vegetation. It is assumed that any special status plant species areas would be avoided. Less than one-quarter acre of floodplain soils and riparian area vegetation would be affected by the Two Springs Ranch boat ramp development.

Impacts to Cultural Resources

Twenty recorded sites are located on the east side of the Deschutes River between the Deschutes Club locked gate and Two Springs Ranch, the remaining twenty are on the west side. Those sites situated on the west side of the river would not be impacted by public vehicle access under Alternatives 5 and 6. East side sites would not receive any additional impacts from the actual vehicle use on existing roads. However, the potential exists for some increase in vandalism as motorboat access is replaced by road access during the winter months. Patrol and permit monitoring would reduce this potential because individuals passing through the Deschutes Club locked gate and the time of their use relative to any vandalism would be known.

Impacts to Visual Quality

No significant impacts to visual quality would occur under Alternatives 1, 2, 3, 4, 5 or 6.

Alternative 7

Approximately three miles of existing road from Highway 197 would be improved. A short segment of this road would be visible from the highway at the intersection which occurs at the site of a microwave station. No significant change in the visual quality from the highway is expected.

The road into the canyon (about three miles) would be designed to reduce its visibility from the river. However, there would be up to about 30 acres of new disturbance and segments of the road cuts are expected to be visible along 0.5 mile of the river. The road cuts would mainly be up a side drainage or high on a ridge reducing their apparent size and visibility to river users. The need to design the road with multiple switchbacks would increase the concentration of visibly disturbed areas on the canyon wall. Visitor sensitivity to a new road would be high and reactions from many current users would likely be negative.

Alternative 8

Impacts to visual quality near Highway 197 would be similar to Alternative 7. Nearly all the trail would also be designed to reduce visibility from the river. After initial construction and a short period of revegetation, the trail is likely to be noticed only by those who are looking for it. The narrow width of the tread and flexibility in alignment and design greatly reduce visibility. While the trail tread would affect about three acres over its length, the majority of disturbance would not be visible from the river due to topographic screening. Visitor sensitivity to a foot trail would be low.

Impacts to Recreation

Alternative 1 - No Action

Use of the area would continue as it has in the past. Any increases in the off-season use would be primarily from motorized boat use. Conflicts with other user groups would increase when motorized users and walk-in users seek access to the same areas.

Opportunities for hunting, fishing or other recreational activities in the area during the off-season would continue to be limited to those with motorized boats or who are willing and able to hike in or float down from upstream launch sites. The nearest launch site is at Trout Creek Recreation Area, 28 miles upstream from the Deschutes Club locked gate. Relatively little use would be expected from nonmotorized boaters and hikers due to adverse weather conditions and the necessity of camping overnight in order to get to the larger tracts of public land. Hiking use would generally be limited to the area immediately upstream from the Deschutes Club locked gate. The primary means of off-season public access would be by motorboat.

Alternative 2 - Motorboat Ban

Off-season use levels in the area between the Deschutes Club locked gate and Two Springs Ranch would decrease due to the loss of access by motorboats in three years. A small amount of use by hikers and floaters would occur as discussed above. A loss of public hunting, fishing and other recreational opportunities would occur. For those users who did float or hike into the area, a high quality experience without competition or conflict with other users would be available. Day use opportunities on public lands on the west bank would not be available. Total use is expected to be reduced by up to 1,050 visits during the 7-month off season.

Alternative 3 - Motorboat Use Limited - No Easement

No significant changes in overall use levels are expected since overall existing motorboat use levels are estimated at less than the five boats per day during the off-season. As proposed under this alternative, some increase in motorboat use could occur. Motorboat opportunities would be limited to a maximum of 30 people per day (5 boats x 6 passengers/boat). Hiking and floating use would be the same as discussed under Alternative 1. Some conflict, although limited by lower off-season use and the cap on motorboat use, could occur between motorboat users and other users. Mechanisms to control the amount of motorboat use would also improve identification and control of users, diminishing potential for vandalism.

Alternative 4 - Motorboat Ban - Easement for Nonmotorized Access

Impacts to recreation use under this alternative would be the same as those discussed under Alternative 2.

Alternative 5 - Motorboat Ban - Easement for Limited Motorized Access

Off-season use of the area beyond the Deschutes Club locked gate would be limited to no more than 30 visitors (5 motor vehicles x 6 passengers/vehicle) per day. Actual use would be expected to fluctuate based on weather conditions, hunting and fishing seasons and availability of support services within the local economy.

Total use for the off season is expected to be 1,050 visits during the short term, potentially expanding in the long term to 4,200 visits for the 7-month period.

Public access in the off-season would increase as a result of opening the area to limited vehicle use. The opportunity and use associated with motorboat use would be lost. The conflict between motorized boaters, other users and homeowners would also be eliminated. The high quality experience without competition or conflict with other users available to the few who float or hike into the area would be diminished as a result of up to five vehicles or 30 visitors per day. Limited conflict involving motor vehicles and visitors (numbers of encounters would be low) would exist with those users who boat into the area from upstream launch sites as well as those landowners who presently have exclusive access rights. Mechanisms to control the amount of motorboat use would also improve identification and control of users, diminishing potential for vandalism.

The construction of a primitive public raft/driftboat launch facility in the vicinity of Two Springs Ranch would increase boating, fishing and other recreational opportunities on the west bank of the river in this area for up to 30 visitors (five vehicles) per day. Total use numbers would be low, use would be dispersed and encounters with other users would be infrequent.

Alternative 6 - Easement Acquisition With Motorboats

Impacts of motor vehicle use under this alternative would be the same as those discussed under Alternative 5. Impacts of motorboat use would be the same as Alternative 3.

Alternative 7 - No easement on existing road, new road constructed from canyon rim to river.

Impacts to recreation would be the same as those discussed under Alternative 5.

Alternative 8 - No easement on existing road, new hiking trail constructed from canyon rim to river.

Impacts to recreation use along the river would be the same as those discussed under Alternative 2 except that use is expected to be more concentrated on the public land block on the east bank upstream of the locked gate. However, use at the overlook would be expected to equal at least 1,050 visits per year, expanding to 4,200 visits as the overlook becomes better known and the trail receives use. Recreation opportunities would shift to include other activities besides winter fishing.

Impacts to Access

Alternatives 1, 2 and 3

Legal public access would remain unchanged under these alternatives. No acquisition costs would be incurred.

Alternative 4

Under this alternative, a trail easement for hiking and nonmotorized mountain bike access with a BLM administrative easement would be acquired. No road maintenance expenses would occur because BLM would not control the road; however, BLM would assume repair costs related to public liability for the tunnel. Costs associated with the direct acquisition of 4.5 miles of trail and administrative easements are estimated at approximately \$200,000. Severance costs 1/, if applicable, could raise this cost significantly. The downstream railroad tunnel would be stabilized and reinforced to meet public safety requirements at an estimated cost of \$1,000,000 2/.

Alternatives 5 and 6

Under these alternatives, an exclusive easement for public vehicular access would be acquired upstream from the Deschutes Club locked gate to the end of the existing BLM easement near Two Springs Ranch. The road would be open for up to 30 visitors (5 vehicles x 6 passengers) per day between October 15 and May 15. This road segment would be closed to public motorized vehicular access from May 16 to October 14. Hiking and mountain bike use would be allowed year-round. The BLM would repair some sections of the road and improve vehicle turnouts at a cost of approximately \$20,000. The downstream railroad tunnel would be stabilized and reinforced to meet public safety requirements at an estimated cost of \$1,000,000 2/. A primitive boat ramp would be constructed in the vicinity of Two Springs Ranch at a cost of approximately \$5,000. Costs associated with direct acquisition of an exclusive easement on 4.5 miles of road is estimated at \$400,000. Severance costs, if applicable, could raise this cost significantly.

1/ Severance costs could include reimbursement to landowners for loss of control of the area, potential vandalism, loss of privacy, security, etc.

2/ Costs are based on preliminary engineering investigations. Specific and more detailed testing may show higher or lower costs. Copies of the preliminary engineering report are available from the Prineville District BLM Office. It should be noted that acquisition of the tunnel would bring an immediate liability to the U.S. Government while repairs to the tunnel could require many months. The tunnel would need to be closed to the public including upstream landowners during the period of tunnel repair. Alternate access for upstream private landowners may need to be provided.

Alternative 7

Under this alternative, acquisition costs would include the price of the land being offered, if not exchanged for other public lands, and the cost of the easement on three miles of road to Highway 197. Estimated value is \$800,000 ^{1/}. This would provide access to the rim year-round and access to the river for up to 30 people per day between October 15 and May 15. The road into the canyon would be closed from May 16 to October 14. Hiking and mountain bike use could occur year-round.

The road would be gravel surfaced, with some steeper sections possibly being paved. Signing, road bumps and guard rails would be needed at some locations to minimize public safety concerns relating to vehicles pulling boat trailers being able to safely negotiate the relatively steep road grade and several switchbacks. Road construction and upgrade would cost about \$700,000. Annual maintenance for the road is expected to run about \$25,000. A primitive boat ramp would be constructed in the vicinity of Two Springs Ranch at a cost of approximately \$5,000.

The acquisition of the offered parcel of land from Criterion Ranches would also connect nine parcels of existing public lands within Deschutes River Canyon. This would greatly enhance the public land base along the Wild and Scenic River.

Alternative 8

Direct acquisition costs would be the same as Alternative 7. Access would be provided to a public overlook, picnic area and trailhead on a year-round basis. The road to the rim would be 2-lane and a recreational vehicle turnaround would be provided. Construction costs are expected to be \$250,000 with annual maintenance being about \$12,000. Similar to Alternative 7, nine existing public land parcels in the Deschutes River Canyon would be connected by this acquisition.

Impacts to Economic Values

The economy of the community of Maupin is more tied to the recreational activities associated with the Deschutes River than any other community in the area. Most purchases in Maupin are for immediate consumables such as food, supplies, equipment and services. These purchases are also seasonal in nature. Recreation-related services are the main source of personal income generation for Maupin. The recreation-related services tend to be seasonal in nature. Float boating, camping and fishing tend to be spring, summer and fall activities to a greater degree with specific uses restricted through allowable seasons.

The community of Maupin has close and direct ties to the area between the Deschutes Club locked gate and Two Springs Ranch since visitors to this area must pass through Maupin.

^{1/} Value shown is a preliminary estimate only. The final appraisal value may vary substantially from this figure.

Area economic events in the past five years have contributed to much uncertainty and concern by local citizens for the future economic health of Maupin. Reduced timber sales on National Forest lands and the closing of local mills have diminished receipts to Wasco County. Also, the farming and ranching industry, an economic mainstay in rural areas, has become less of an economic factor in the community. Thus recreation use on the Deschutes River has become even more critical for community and business vitality since the recent (March 1992) closing of the local sawmill.

Alternatives 1 and 3

There would be no impact under these alternatives other than the lost opportunity to provide additional recreation use and opportunity for the generation of expenditures for local purchases of goods and services.

Alternatives 2 and 4

A slight reduction in recreation use would occur due to the elimination of motorboat use within this area of the Deschutes River. This is expected to be an average of less than five recreation visitors per day or 1,050 recreation visits for the 7-month off-season. This would equate to \$57,750 lost expenditures for local purchases of goods and services over this period. Annual long-term losses would be slightly greater but overall adverse impacts would still be minor. However when added to the current economic problems facing the community of Maupin, it contributes to the cumulative impact on the community.

There would not be any change in recreation use of the area by hikers and mountain bikers.

Alternatives 5, 6, 7 and 8

The opening of the Deschutes Club locked gate or constructing a new road into the canyon would increase recreation use slightly because it allows for a longer stretch of the Deschutes River to be utilized by up to 30 members of the general public per day during the off-season (October 15-May 15). Similarly, a road to a scenic overlook and trailhead would also increase use slightly. This would allow the Maupin local economy to capture additional expenditures for local purchases of goods and services.

In addition, the development, operation and maintenance costs associated with the road and tunnel improvement, even though limited, would have a beneficial impact to the local economy by providing opportunities for temporary jobs in an area that is currently in need of additional employment.

If the area above the Deschutes Club locked gate were currently accessible, it is estimated that an average of five recreation visitors per day would take advantage of this situation (1,050 recreation visits for the off-season) in the short term. This would increase to a maximum average of 20 recreation visitors per day (4,200 recreation visits for the off-season) in the long term. Under Alternative 8, most of those visits would occur at the overlook above the rim of the canyon.

Expenditures for local purchases could generate approximately \$58,000 (\$55 x 1,050 recreation visits) for the off-season when it first becomes available. This could increase to \$231,000 (\$55 x 4,200 recreation visits) for the off-season after the area has grown in popularity. It should be emphasized that the majority of recreation users to take advantage of the increased access opportunity into this area of the Deschutes River would be expected to come from the more immediate area, perhaps encompassing a 50-mile radius. Some of these recreationists would spend a minimum of money in the local economy and would not require overnight accommodations. While local purchase expenditures should help, the beneficial impact would be minor since it is spread over a 7-month period of time.

Chapter IV Consultation, Coordination and Distribution

A notice of availability of the supplement to the draft was published in the Federal Register in May 1992 to announce the Bureau effort to address the additional issue. Public comments and letters were used to develop alternatives including the "perpendicular access" road and/or trail options. A briefing for the Deschutes River Policy Group on May 8, 1992 provided opportunities for their perspective to be considered as well. Two hearings to allow oral comment on the supplement will be provided as described in the cover letter. Written and oral comment transcripts will be considered in preparing the FEIS. All comment letters and hearing transcripts will be available for inspection at the Prineville BLM District Office.

In preparation of this document, meetings or presentations were conducted with the following groups or their representatives.

Deschutes Homeowners Association (Dant)
Deschutes Club
North Junction Homeowners
Deschutes River Policy Group
Northwest Rafters Association
Oregon Guides and Packers
Deschutes River Public Outfitters
Wasco County Court
Criterion Ranches
Congressional Staffs

A field visit was also held with Dant Homeowners and Deschutes Club representatives. Field visits were conducted by BLM engineering personnel to gather preliminary data on tunnel repairs as well as road and trail construction/reconstruction.

Copies of this supplement have been mailed to over 3,300 persons or groups who received the draft plan and EIS. Copies are also available for review in local libraries. The complete mailing list is available for inspection at the Prineville BLM District Office.

Chapter V List of Preparers, References and Glossary

Although individuals had primary responsibility for preparing sections of this supplement to the draft plan and EIS, preparation of the document itself was an interdisciplinary team effort. An internal review of the document was conducted at each stage of its preparation. Specialists at the district level and the state level of the Bureau of Land Management reviewed the analysis and supplied information.

<u>Name</u>	<u>Title</u>	<u>Subject</u>
Magdy Assaad	Chief Engineering, Operations Section	Preliminary Tunnel Engineering Report
Brian Cunningham	Natural Resource Specialist	EIS Team Leader
James Kenna	Area Manager	Review and Edit
Shaaron Netherton	Supv Recreational Planner	Recreation, Visual Resources
Milt Rogers	Appraiser	Access
Ron Van Domelen	Natural Resource Specialist	Construction/Maintenance
Eric Stone	Program Analyst	Technical Review
Marci Todd	Archaeologist	Cultural Resources

Except for BLM road traffic reports and preliminary engineering studies and surveys which are available for inspection in the Prineville District Office, there are no additional references besides those listed in Chapter VII Part B of the draft plan and EIS, pg. 298-301. All terms requiring definition are explained within the text of this supplement and are consistent with the draft plan and EIS Glossary, Appendix, (pg. 302-308). Due to the brevity of this supplement and utility of the Table of Contents, no index has been included.

Geologic Units and Features

Geologic Unit	Description	Age	Geographic Area
Colorado Plateau	Large area of Precambrian metamorphic rocks, Paleozoic sedimentary rocks, and Mesozoic-Cenozoic volcanic and plutonic rocks.	Precambrian to Recent	Western Colorado
Colorado Rockies	Large area of Precambrian metamorphic rocks, Paleozoic sedimentary rocks, and Mesozoic-Cenozoic volcanic and plutonic rocks.	Precambrian to Recent	Western Colorado
Front Range	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Central Colorado
Rocky Mountain Foothills	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Central Colorado
Colorado River System	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Southwestern Colorado
High Plains	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Eastern Colorado
Great Plains	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Eastern Colorado
Colorado Plateau	Large area of Precambrian metamorphic rocks, Paleozoic sedimentary rocks, and Mesozoic-Cenozoic volcanic and plutonic rocks.	Precambrian to Recent	Western Colorado
Colorado Rockies	Large area of Precambrian metamorphic rocks, Paleozoic sedimentary rocks, and Mesozoic-Cenozoic volcanic and plutonic rocks.	Precambrian to Recent	Western Colorado
Front Range	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Central Colorado
Rocky Mountain Foothills	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Central Colorado
Colorado River System	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Southwestern Colorado
High Plains	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Eastern Colorado
Great Plains	Large area of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.	Paleozoic to Recent	Eastern Colorado

Exhibit 20 shows the locations of the major geological units in the state. The following is a brief description of the major geological units in Colorado:

- Colorado Plateau:** This unit includes the Colorado Plateau, the Colorado Rockies, the Front Range, the Rocky Mountain Foothills, and the Colorado River System. It is composed of Precambrian metamorphic rocks, Paleozoic sedimentary rocks, and Mesozoic-Cenozoic volcanic and plutonic rocks. The Colorado Plateau is the largest area of this unit in the state.
- High Plains:** This unit is located in the eastern part of the state and includes the Great Plains and the Colorado River System. It is composed of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.
- Great Plains:** This unit is located in the central part of the state and includes the Colorado River System. It is composed of Paleozoic sedimentary rocks, Mesozoic-Cenozoic volcanic and plutonic rocks, and Cenozoic alluvium.

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